Coldwater River National Wildlife Refuge Summary – 2009

Coldwater River National Wildlife Refuge (CWR) is a 2,694-acre refuge located south of Crowder and northwest of Charleston in the delta region of Mississippi. Most of the refuge was historically bottomland hardwood forest that was cleared within the last 40 years for agricultural purposes. The northern portion of the refuge consists of 420 acres of abandoned catfish ponds. When the U.S. Fish and Wildlife Service purchased the refuge in the mid-1990's, the bulk of the land was reforested and the catfish ponds were converted to moist-soil units which were managed for waterfowl. Currently, the majority of the units are actively managed, while several are kept flooded and dominated by vegetation such as black willow, buttonbush, and soft rush.

During the summer of 2009, staff at the North Mississippi Refuges Complex collected three complete samples and two partial samples of metamorphs on CWR. Table 1 below summarizes the sampling effort for 2009.

Table 1: Summary of metamorph collections from Coldwater River NWR.

Date	Site	Species Species	Number	Number
Duto			Collected	Abnormal
5/27/09	Unit Q	Bufo woodhousii fowleri	60	1
5/27/09	Unit Q	Rana sphenocephala	1	1
5/27 - 29/09	Unit R	Rana sphenocephala	37	4
6/18/09	Unit F	Bufo woodhousii fowleri	66	3
7/8/09	Unit P	Acris crepitans	55	2

Most abnormalities were missing toe tips or other foot abnormalities. However, one A. crepitans with a missing eye and one R. sphenocephala with a lesion at the base of its tail were collected. All specimens except the aforementioned Rana were sent to Dr. Mike Lannoo for radiography.

Units P and R are units that are permanently flooded and have dense stands of willow over portions of the units. Units F and Q were drawn down early this year (beginning in mid-March with only small pools of water remaining at the time of sampling). In 2008, both unit F and Q were treated with UltraBlazer herbicide (acifluorfen) to control coffeeweed at a rate of 1 pint of UltraBlazer per acre.

In addition to the above collections, these sites and others were checked periodically April - July to determine when collecting a sample would be feasible. It is interesting to note that a researcher working on the refuge in September captured a large number of young *R. catesbeiana*. Although most were beyond the maximum size allowed for this study, it may be useful to remember for timing future collections if *R. catesbeiana* is a targeted species.

The following people participated in sample collection or processing: Becky Rosamond, Mark Williams, Erin Wheeler, Taylor Ramagos, and Sidney Townes.



6	- Y09 F	FY09 FROG SPECIMEN I RACKING LOG	EN IRAC	KING LOG						
Date Collect	Date Shipped	Shipped To	Shipped For	Abnormal Frog ID	Spp	Ref	State	Site ID	Collectors	Fixative
27-May-09	3-Aug-09	Dr. Mike Lannoo	radiography	R4-CWR02-052709- BFOW-001	BFOW		S S	CWR02	B. Rosamond, T. Ramagos	95%
27-May-09	3-Aug-09	Dr. Mike Lannoo	radiography	R4-CWR02-052709- RASP-001	RASP		Š	CWR02	B. Rosamond, T. Ramagos	95%
27-May-09	3-Aug-09	Dr. Mike Lannoo	radiography	R4-CWR03-052709- RASP-001	HASP		Š	CWR03	B. Rosamond, T. Ramagos	95% [
27-May-09				R4-CWR03-052709- RASP-002	HASP		S S	CWR03	B. Rosamond, T. Ramagos	95%
27-May-09	3-Aug-09	Dr. Mike Lannoo	radiography	R4-CWR03-052709- RASP-003	RASP		MS.	CWR03	B. Rosamond, T. Ramagos	95%
29-May-09					RASP				M. Williams	
18-Jun-09	3-Aug-09	Mike Lanoo	radiography	R4-CWR004-061809- BFOW-042	ВЕОЖ		S S	CWR004	B. Rosamond, et al.	95%
18-Jun-09	3-Aug-09	Mike Lanco	radiography	R4-CWR004-061809- BFOW-050	BFOW		S S	CWR004	B. Rosamond, et al.	95%
18-Jun-09	3-Aug-09	Mike Lanco	radiography	R4-CWR004-061809- BFOW-062	BFOW		MS	CWR004	B. Rosamond, et al.	95%
8-Jul-09	3-Aug-09	Dr. Mike Lanoo	radiography	R4-CWR05-070809- ACCR-037	ACCR		MS	CWR05	B. Rosamond and M. Williams	95%
8-Jul-09	3-Aug-09	Dr. Mike Lanoo	radiography	R4-CWR05-070809- ACCR-046	ACCR		NS	CWR05	B. Rosamond and M. Williams	95%



areas)

througout)

and dry)

USFWS National Abnormal Amphibian Program

DATA COLLECTION FORM

Date:	5/27/2009			Collectors:	Becky Rosamond
Refuge:	Coldwater R	River NWR			Taylor Ramagos
Site ID:	CWR02	(Unit Q)			
Air Temp		Water Temp			
(C°)	28	(C ⁰)	27	Start time: 11:56	# Egg Masses Present: none observed
Water	level (select	from the follow	ing):	End time: 12:40	Egg Mass Water Depth (cm): N/A
deep	shallow	drying	dried up	suny, hot, Weather: humid	Egg Mass Species ID Code(s): N/A
(> 3ft in some	(< 3ft	(between 3 ft	(no water)	-	

Frog#	Species	Length	(mm)	Gosner	Abnormal?	Preserved?	Abnormal	Comments
1106"	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID	Valuend
1	BFOW	14	1	45				
2	BFOW	14	0	45				
3	BFOW	14	0	45				
4	BFOW	13	0	45				
5	BFOW	12	4	44				
6	BFOW	14	0	45				
7	BFOW	14	1	45				
8	BFOW	11	1	45				
9	BFOW	13	1	45				
10	BFOW	14	0	45				
11	BFOW	13	1	45				
12	BFOW	13	1	45				
13	BFOW	12	4	44				
14	BFOW	13	1	45				
15	BFOW	12	6	43				
16	BFOW	13	0	45				
17	BFOW	13	1	45				
18	BFOW	13	6	43				
19	BFOW	14	8	43				
20	BFOW	14	2	44				
21	BFOW	13	2	44				
22	BFOW	13	1	44				
	BFOW	12	6	43				
	BFOW	14	0	45				
	BFOW	13	0	44				
	BFOW	13	0	45				
	BFOW	13	1	45				
	BFOW	13	1	44				
-	BFOW	14	0	45				
	BFOW	12	1	45				
	BFOW	14	0	45				
	BFOW	13	2	45				



SITE CHARACTERIZATION FORM

Refuge :	Coldwater River		Collectors:	Becky Rosa	mond
Date:	5/27/2009			Taylor Rama	agos
Site ID:	CWR02 (Unit Q)				
Start Time :	11:56 a.m. 12:40 p.m.	Air (°C) : H ₂ O (°C) :	28	Weather:	sunny, hot, and humid
1		1120 (0) .			
Datum:	WGS 84 decimal degre			on (+/- m) :	Gi-
Latitude :		N 34.09740		GPS unit :	
Longitude:		W 90.13313	4	GPS unit : 3	3+
	re coordinates were take ken due east of site, on po		and :		
Area (m²) : % Canopy Cover: Habitat type (0	level (select from):	deep (> 3ft in some areas)	shallow (< 3ft throughout)	drying dried up (between 3 (no water) ft and dry)
Contaminants	s of Concern (Select from	list):		Surroundin	ng Land Use (Select_from list):
Pesticides (rec		, :	North:		Riparian Corridor
Pesticides (his					Riparian Corridor
			9		Riparian Corridor
			West:	Waterbody/l	Riparian Corridor
Sita Photo Fil	enames (SiteID-direction)	facing DATE).	K 3		
CWR02-W-05		jacing-DAIL):		CWR02-SW	V-052709
CWR02-N-052			8	CWR02-SE-	
			9		
	artweed. Some small clur				SGS). Area currently heavily vegetated with water covering wester end, water primarily
			Page 1		cwr02-bfow-052709



SITE CHARACTERIZATION FORM

Refuge:	Coldwater River		Collectors: Becky Rosamond	
Date:	5/27/2009		Taylor Ramagos	
Site ID:	CWR02 (Unit Q)			
Start Time :	11:56 a.m.	Air (°C):	: 28 Weather: sunny, hot, and humid	
End Time:	12:40 p.m.	H ₂ O (°C):	27	
Datum :	WGS 84 decimal degrees	(hddd.ddddd°)	Elevation (+/- m):	
Latitude :		N 34.09740	Make of GPS unit : Garmin	
Longitude :		W 90.13313	Model of GPS unit : 3+	
	re coordinates were taken in tken due east of site, on pond		land :	
Area (m²): % Canopy Cover: Habitat type	0	el (select from): -made Pond	deep shallow drying dried up (> 3ft in some (< 3ft (between 3 (no water) areas) throughout) ft and dry)	
	s of Concern (Select from list	t):	Surrounding Land Use (Select from list):	
Pesticides (rec		• • • • • • • • • • • • • • • • • • • •	North: Waterbody/Riparian Corridor	
Pesticides (his			East: Waterbody/Riparian Corridor	
	,		South: Waterbody/Riparian Corridor	
			West: Waterbody/Riparian Corridor	
Site Photo Fil	enames (SiteID-direction fac	ing_DATE) ·	-	
CWR02-W-05	•	mg-DAIL).	CWR02-SW-052709	
CWR02-N-05			CWR02-SE-052709	
			-s s	
	nartweed. Some small clumps	s of willow sapling	t of a study with ARMI (USGS). Area currently heavily vegetategs in sample area. Shallow water covering wester end, water properties of the content of the c	imarily

0.



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USFWS National Abnormal Amphibian Program

DATA COLLECTION FORM

Date:	5/27/2009			Collectors: Bea	cky Rosamond
Refuge:	Coldwater R	iver NWR			ylor Ramagos
Site ID:	CWR02	(Unit Q)			
Air Temp		Water Temp			
(C°)	28	(Co)	27	Start time: 11:56	# Egg Masses Present: none observed
Water	level (select	from the follow	ring):	End time: 12:40	Egg Mass Water Depth (cm): N/A
deep	shallow	drying	dried up	suny, hot, Weather: humid	Egg Mass Species ID Code(s): N/A
. 2ft in come	(- 3ft	(hotween 3 ft	(no water)		

Frog#	Species	Length	(mm)	Gosner	Abnormal?	Preserved?	Abnormal	Comments
T. I.O.S.u.	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID	
1	BFOW	14	1	45				
2	BFOW	14	0	45				
3	BFOW	14	0	45				
4	BFOW	13	0	45				
5	BFOW	12	4	44				
6	BFOW	14	0	45				
7	BFOW	14	1	45				
8	BFOW	11	1	45				
9	BFOW	13	1	45				
10	BFOW	14	0	45				
11	BFOW	13	1	45				
12	BFOW	13	1	45				
13	BFOW	12	4	44				
14	BFOW	13	1	45				
15	BFOW	12	6	43				
16	BFOW	13	0	45				
17	BFOW	13	1	45				
18	BFOW	13	6	43				
19	BFOW	14	8	43				
20	BFOW	14	2.	44				
21	BFOW	13	2	44				
22	BFOW	13	1	44				
	BFOW	12	6	43				
	BFOW	14	0	45				
	BFOW	13	0	44				
	BFOW	13	0	45				
	BFOW	13	1	45				
	BFOW	13	1					
	BFOW	14	0					
	BFOW	12	1	45				
	BFOW	14	0					
	BFOW	13	2	45				



SITE CHARACTERIZATION FORM

Refuge: Coldwark River	Collectors: Becky Rosemond
Date: 5/27/09	Collectors: Becky Rosemond Taylor Ramagos
Site ID:	
Start Time: 1156 am Air (°C):	830 F Weather: Sunny, Lot, hugaid
End Time: 12:40 pm H ₂ O (°C):	80°F
Datum: WGS 84 decimal degrees (hddd.ddddd°)	Elevation (+/- m) :
Latitude: 34.09.740 N	Make of GPS unit: Garmin
Longitude: 90.13313W	Model of GPS unit:
Describe where coordinates were taken in relation to wetland	nd:
adjacent (east)	
Area (m ²): $5,000 \text{ m}^2$ (select from):	deep shallow drying dried up
% Canopy Cover:	(> 3ft in some (< 3ft (between 3 (no water) areas) throughout) ft and dry)
- MAN MARK	
Contaminants of Concern (Select from list):	Surrounding Land Use (Select from list): North:
None suspected	North: Water body / aprilan corridor (C) East:
	South:
	West:
Site Photo Filenames (SiteID-direction facing-DATE):	
<u> </u>	3 SW
N N	(4) Se
	r last yav
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	Por Company Co
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3 2	O wsillows
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	ever (gross)
1	EVOA "Data Shoots Forms vis" Sita Characterization Form
Covering herself and water it rids	Set T smart with willow cloude shallow with



DATA COLLECTION FORM

Date: _ Refuge:	5 27 09	Collectors:	Becky Rosamond Taylor Ramonds	
_	CWROZ (Un	+ 0\	J3	
Air Temp (C*)	Water Temp (C°)	Start time: 11:56 a	# Egg Masses Present: _	none observed
Water 1	evel (select from the following):	End time: 12:40 p	Egg Mass Water Depth (cm):_	N/A
deep	shallow drying dried		Egg Mass Species ID Code(s):_	NA
(> 3ft in some areas)	(< 3ft (between 3 ft) (no wa througout)	ter)	,	

E#	Species	Length	ı (mm)	Gosner	Abnormal?	Preserved?	Abnormal	Comments
Frog#	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID	- VALIBRADAY.
	BEOW	14		45				
2	BFOW	14	0	45				
3	BFOW	14	0	45				
4	BEOW	13	0	45			- Company of the Comp	
5	BFOW	12	4	44				
6	BFOW	14	0	45				
7	BFOW	14	1	45				
8	BFOW			45				
9	BFOW	13		45				
10	BFUW	14	0	45				
11	BEOW	13		45				
12	BF (W	13		45				
13	BFOW	12	4	44				
[4]	BFOW	13		45				
15	BFOW	12	6	43				
110	BFOW	13	0	45				
17	BEUW	13		45				
<u></u>	(13	6	43				Died in container
7		14	8	43				Ded in container
20		14	2.	44				
21		13	2	44				
22		13		44				
73		12	6	43				
24		14	G	45				
25		13	0	44				
26	-	13	0	45			100 110 110 110 110 110	
21		13	1	45				
28	ì	13	1	44				

2. Process each frog

3. If abnormal, assign a unique Abnormal Frog ID: Region Number (R4) - 5 character SiteID -

6 digit collection date - Species Code -3 digit Prog # from this collection.

H. - Body langh Tall - Tall longs SVI - Sand Vost langh Tall - Taul longs H. - Ty of the most is the point when the long leither of the tall namely pion the body Tall - Post when the lateral million of the tall namely jours the body to the sign of the tall

Comments:

Snecils,

Example Abnormal Frog ID: R4-OVF02-060403-RASP-002 we tal-fur that the interior for interior for interior for the last of the same and Region 4, Overflow NWR, site 02, June 4, 2003, Rana sphenocephala, frog #002

4. Fill out an Abnormal Frog Sheet for each abnormal frog found.

Frog#	Species		h (mm)	Gosner	Abnormal?	Preserved?	Abnormal	Comments	
	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID		
29	BFOW	14	0	45					
30		12]	45					
30 31		14	0	45					
32		13	2	45					
27					, -		201	lock to the second	24
33		12	8	43	V	/	001	left rear foot missing	1062 20, 1,
34		13	0	45					
35	1	13	0	45					
36		14	2	44				trad in container	
31		14	0	45		THE WEST		tary is state and	
38	1	13	2	44					
34		15	0	45					
40		14	O	45					
41		14	8	45					
42		12	0	45					
		12	1						
43	1		0	45					
94		14	2	1.1			2		
45		13	7	43					
Hw		12	8	44					
41		14	0	45					l
48		13	0	45					
			1						
49		13	-	44					
5%		13	0	45					1
51		13	6	44					ŀ
52		12	0	45					
53		14	0	45					
93	1		0	44					ł
54		13	1						
55		12	-	44					
50		13	6	44					
57		13	5	44					
56		12	5	44					1
		14	3	44					
50				45					
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	1	1							1
	 	 							1
				 -					-
7.									1
	 	 							1
	ļ			-					-
				.					1
	1								
	ROSP	33	0	46	1	1	R4-CWR02-052709-RASP	Right Reux lea to 4	
	121-1		<u> </u>	1.17	IV		-001	Own Stack out	-

-001

Por Stuck out



W 1159 N 1200

SE 1201

5W 1201

Sheet	 of	2



U.S. Fish and Wildlife Service - National Abnormal Amphibian Initiative

Left

FRONT LIMBS

Right

Refuge:	Coldwester	River NWR		5/27/09
Collectors:	B. Rosamord	T. Ramagos	Site/Location:	CWE 02

Abnormal Frog ID Number: R4-CWR02-052709-BFOW-001

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES					
Left	Right				
		Smaller than normal			
		Pupil abnormally shaped			
		Unusual position (describe)			
		Missing iris, "Hollow Eye"			
		Extra eye(s) (describe)			
		Other (describe)			

		Unusual position (describe)			Digits missing, fused or clubbed (describe)
	1	Missing iris, "Hollow Eye"			Complete calf present, abnormal
	I	Extra eye(s) (describe)			musculature (enlarged or atrophied)
		Other (describe)			Other (describe)
					10
HIND	LIMBS		JAWS		
HIND Left	LIMBS Right		JAWS Left	Right	
	Right	Entire limb present, unusual angle			Lower jaw shortened
	Right	Entire limb present, unusual angle (twisted, rotated, etcdescribe)			Lower jaw shortened Upper jaw shortened

	LIMBS	T
Left	Right	and the second s
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
\vee		digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
	1	abnormal musculature (enlarged or
		atrophied)
	1-1-1-1	Portion of thigh (femur) missing,
		(estimate length of thigh present)
1:		Entire limb missing
		Other (describe)

3: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)
kinked or bent tail
 cysts, lumps or growths
other (describe)

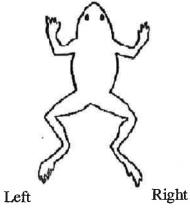
Partial limb (describe)

Foot missing

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:		
lest rear foot missing	partions of toes	
2+4	·	

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



U.S. Fish and Wildlife Service - National Abnormal Amphibian Initiative

Refuge: Coldwar Piner	Date: 5/27/09
Collectors: B. Rosa mond, T. Ramagos	Site/Location:

Abnormal Frog ID Number: R4 - CWRO2-052709 - RASP-001

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. <i>-describe</i>)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
	-	Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right
		(describe)
		WEBBING - fusion between thigh
		and calf (describe)
		Extra Limbs- how many, location
		(describe)
		Fresh Bleeding or Injuries
		(describe)
		Other (describe)

FRON	T LIMBS	
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

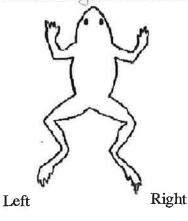
JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

E: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)
kinked or bent tail
cysts, lumps or growths
other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:

Missing tip of toe 4 on right year leg - bone still present but soft



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



USFWS National Abnormal Amphibian Program SITE CHARACTERIZATION FORM

Refuge :	Coldwater River		Collectors :	Becky Rosamond (5/27, 5/28)					
Date:	5/27/2009, 5/28/2009, 5/29/200)9	-	Taylor Ramagos (5/27)					
Site ID :	CWR03 (Unit R)		-	Mark Williams (5/28, 5/29)					
Start Time :	1:10 pm, 2:30 pm, 10:35 am	Air (°C) :	26	Weather: sunny, hot					
End Time :	2:31 pm, 3:18 pm, 11:35 am	H ₂ O (°C) :		,					
		_		(1/)					
Datum:	WGS 84 decimal degrees (hddd.dd	dddd°)	-	on (+/- m) :					
Latitude :	N 34.09677			GPS unit : Garmin					
Longitude :	W 90.13313		Model of GPS unit : 3+						
	re coordinates were taken in i	relation to wetland :							
Area (m²) : % Canopy Cover:	0	level (select from): Man-made pond	deep (> 3ft in some areas)	shallow drying dried up (< 3ft (between 3 (no water) throughout ft and dry)					
	s of Concern (Select from list)			Surrounding Land Use (Select from list):					
Pesticides (his			North:	Waterbody/Riparian Corridor					
L COMPIGEO (III)				Waterbody/Riparian Corridor					
			-	Waterbody/Riparian Corridor					
				Waterbody/Riparian Corridor					
		11	-	Transition of the state of the					
Site Photo Fil CWR03-E-052	enam es (<i>SiteID-direction facin</i> 2709	g-DATE):		CWR03-S-052709					
CWR03-N-05			-						
Comments :			-						
	_		_	ed sirens (juvenile), crayfish, mosquitofish, predaceous ing spiders. Incomplete sample.					



areas)

througout)

and dry)

USFWS National Abnormal Amphibian Program

DATA COLLECTION FORM

Refuge: Coldwater River NWR Taylor Ramagos (5/27)

Site ID: CWR03 (Unit R) Mark Williams (5/28, 5/29)

Air Temp Water Temp 1:10 pm, 2:30 pm,

(C°) 26 (C°) 31 Start time: 10:35 am # Egg Masses Present: none observed

2:31 p.m, 3:18 pm,

Water level (select from the following): End time: 11:35 am Egg Mass Water Depth (cm): N/A

deep shallow drying dried up Weather: sunny Egg Mass Species ID Code(s): N/A (> 3ft in some (< 3ft (between 3 ft (no water)

Frog#	Species	Length (mm)		Gosner	Abnormal?	Preserved?	Abnormal	Comments	
Code		Code SVL		Stage	(mark if Yes)	(mark if Yes)	Frog ID	Comments	
1	RASP	31	4	44					
2	RASP	32	1	45					
3	RASP	30	9	45					
4	RASP	32	0	45					
5	RASP	32	58	42					
6	RASP	28	40	43					
7	RASP	29	3	44					
8	RASP	31	4	44					
9	RASP	30	9	44	х	х	R4-CWR03-052709-RASP- 001	Missing part of toe 4 on right rear foot.	
10	RASP	33	5	45					
11	RASP	32	58	42					
12	RASP	32	49	43					
13	RASP	31	7	44	x	x	R4-CWR03-052709-RASP- 002	Lesion on left side of tail on dorsal surface at base.	
14	RASP	31	0	45					
15	RASP	33	35	44				tail injury - fresh	
16	RASP	31	6	44	X	х	R4-CWR03-052709-RASP- 003	Missing part of toe 2 on right rear foot.	
17	RASP	35	39	43					
18	RASP	30	6	44					
19	RASP	29	42	42					
20	RASP	30	38	42					
21	RASP	35	6	45					
22	RASP	31	7	45					
23	RASP	31	36	44					
24	RASP	30	0	46					
25	RASP	33	38	43					
26	RASP	30	49	43					
27	RASP	29	54	43					
28	RASP	32	36	44					
29	RASP	27	16	44					
30	RASP	32	27	44					



SITE CHARACTERIZATION FORM

Refuge:	Coldwater River		Collectors :	Becky Rosamond (5/27, 5/28)					
Date :	5/27/2009, 5/28/2009, 5/29/2009			Taylor Ramagos (5/27)					
Site ID:	CWR03 (Unit R)		1	Mark Williams (5/28, 5/29)					
Site 12 ·			9						
Start Time :	1:10 pm, 2:30 pm, 10:35 am	Air (°C):	26	Weather: sunny, hot					
End Time:	2:31 pm, 3:18 pm, 11:35 am	H ₂ O (°C) :	31						
	- A SANCER CONTRACTOR		Fleveti	on (+/- m) :					
Datum:	WGS 84 decimal degrees (hddd.dddddo') N 34.09677			GPS unit: Garmin					
Latitude :			Model of GPS unit : 3+						
Longitude :	W 90.13313		Model of GPS unit: 5+						
	ere coordinates were taken in relation to	wetland :							
Just west of sa	ample area on levee.								
Area (m ²): % Canopy Cover:	0		deep (> 3ft in some areas)	shallow drying dried up e (< 3ft (between 3 (no water) throughout ft and dry)					
		pone							
Contaminant	s of Concern (Select from list):			Surrounding Land Use (Select from list):					
Pesticides (his	storic)			Waterbody/Riparian Corridor					
	W. Spirit II		•	Waterbody/Riparian Corridor					
				Waterbody/Riparian Corridor					
			West:	Waterbody/Riparian Corridor					
Site Photo Fi	lenames (SiteID-direction facing-DATE)	:							
CWR03-E-05	2709		((*))	CWR03-S-052709					
CWR03-N-05	2709		•						
Comments :			•						
Sampled edge				led sirens (juvenile), crayfish, mosquitofish, predaceous ing spiders.					

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areas)

througout)

USFWS National Abnormal Amphibian Program

DATA COLLECTION FORM

Date: 5/27/2009, 5/28/2009, 5/29/2009 Collectors: Becky Rosamond (5/27, 5/28)

Refuge: Coldwater River NWR Taylor Ramagos (5/27)

Site ID: CWR03 (Unit R) Mark Williams (5/28, 5/29)

and dry)

1:10 pm,
Air Temp Water Temp 2:30 pm,
(C°) 26 (C°) 31 Start time: 10:35 am #Egg Masses Present: none observed

2:31 p.m, 3:18 pm,

Water level (select from the following): End time: 11:35 am Egg Mass Water Depth (cm): N/A

deep shallow drying dried up Weather: sunny Egg Mass Species ID Code(s): N/A (> 3ft in some (< 3ft (between 3 ft (no water)

Species Gosner Abnormal? Preserved? Abnormal Length (mm) Comments Frog# Frog ID Code SVL TAL Stage (mark if Yes) (mark if Yes) 31 44 RASP 2 RASP 32 45 45 3 RASP 30 32 0 45 4 RASP 58 42 5 RASP 32 28 40 43 6 RASP 7 RASP 29 44 31 44 8 RASP R4-CWR03-052709-RASP-Missing part of toe 4 on right rear foot. 9 RASP 30 44 X 45 33 10 RASP 11 RASP 32 58 42 43 32 49 12 RASP Lesion on left side of tail on R4-CWR03-052709-RASPdorsal surface at base. 002 13 RASP 31 44 31 0 45 14 RASP tail injury - fresh 33 35 44 15 RASP R4-CWR03-052709-RASP-Missing part of toe 2 on right rear foot. 16 RASP 31 44 X 17 RASP 35 39 43 18 RASP 30 44 42 19 RASP 29 42 42 30 38 20 RASP 21 RASP 35 45 45 22 RASP 31 31 36 44 23 RASP 30 46 24 RASP 0 33 38 43 25 RASP 30 49 43 26 RASP 27 RASP 29 54 43 28 RASP 32 36 44 27 44 29 RASP 16 27 30 RASP 32

¥					



USFWS National Abnormal Amphibian Program SITE CHARACTERIZATION FORM

Incomplete, sample

Refuge: Coldwoder River Date: 5/27/09 Site ID: R(western ade)	Collectors: Beck Rosamond 5/27+5/
Start Time: 1:10 pm 2:30 10:35a Ai	or (°C): 78° F Weather: Starting hot
Datum: WGS 84 decimal degrees (hddd.ddd Latitude: 34.09677 N Longitude: 90.13313	Make of GPS unit : Model of GPS unit :
Describe where coordinates were taken in relation to	
Area (m ²): 8.00 n Water level (select) % Canopy Cover:	(> 3ft in some (< 3ft (between 3 (no water) areas) throughout) ft and dry)
Habitat type (Select from list): Contaminants of Concern (Select from list):	Surrounding Land Use (Select from list): North: East:
	South: West:
Site Photo Filenames (SiteID-direction facing-DATE (2)	
Comments :	
The Grand State of the State of	Sampled edge of unit in flooded grasses i rushes also present siere (juv) Evansish, mosgandorsh AN

		į.	



DATA COLLECTION FORM

Date: _	5/27/09	Collectors:	Becky Rosamond
Refuge:	CWR		Taylor Kamagos
Site ID:	CWR03 (Unit R)		Mark Williams
Air Temp	Water Temp	1	
(C°)	(C°)	Start time: 1:100	10:35 # Egg Masses Present: None observed
Water le	evel (select from the following):	End time: 2/31	Egg Mass Water Depth (cm): N/A
deep	shallow drying dried up	Weather: swam	Egg Mass Species ID Code(s)://_/
(> 3ft in some	(<3ft (between 3 ft (no water)	0	1.
areas)	througout) and dry)		R4-CWR03-052709-RASP-

Frog#	Species	Length	(mm)	Gosner	Abnormal?	Preserved?	Abnormal	Comments	
Frog#	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID	Commens	
	RASP	31	4	44				1 Was 1 2 11 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
2	1	32	ĺ	45					
3		31	9	45					
4		32	0	45					
5		32	58	42				1111	
6		28	40	43			75 13 100 25		
1		29	3	44					
Q.		31	4	HE					
9		30	9	44	7	V	001	Right Rear for 9 short	
G.	1	33	5	45				ď	
11		31	58	42					
12		32	49	43				· · · · · · · · · · · · · · · · · · ·	
13	-	31	11	44	1	/	002	lesion on tail-base	
14		31	0	45					
15	and the same	33	25	44				tail injury	
10	į	31	6	44		V	D0 3	toe 2 shortered right	e
1.7		35	39	43					
18		30	6	44					
19		29	42	42					
20		30	38	42					
21		35	6	45					
22		31	17	45					
13		31	36	44					
24 24 25		30	0	46					
15		33	38	43					
26		30	49	43					
27		29	54	43					
28		32	36	144					

1. Frog #: Number frogs 1,2,3,... for each species.

2. Process each frog.

If abnormal, assign a unique Abaormal Frog ID:
 Region Number (R4) - 5 character SiteID 6 digit collection date - Species Code 3 digit Prog # from this collection.

Key Measurements of Tadpoles/Metamosphs Key M a copins Incidental Species Encountered:

RL - Body Length TAL - Tail Length TAL - Stand Veril Length TA. - Taid Length RL - Tay of the most to the point where the intered surface of the tail number joins the body. TAL - Post where the intered minimum of the tail number joins the body to the tay of the tail. Comments:

Example Abnormal Frog ID: R4-0VF02-060403-RASP-002 wo Till-You short the land of the offered in the body in the first faithful Region 4, Overflow NWR, site 02, June 4, 2003, Rans sphenocophals, frog #002

4. Fill out an Abnormal Frog Sheet for each abnormal frog found.

	Species	Lengtl	ı (mm)	Gosner	Abnormal?	Preserved?	Abnormal	Comments
Frog#	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID	Connents
29		27	16	44				
30		32	27	44				
31		27	38	Wa				
32		31	4	45				
		33	28	44				
33								
34		33	22	44				
35		29	47	44				
36		35	0	46			011 4 112 10000	10/7 400 100 10 50 100
37		33	0	46	V		R4-CWR03-052909-	arough 2 font-precio
-								****
							- 1	
-								
							, later particular par	
			-					
							- Committee of the Comm	
								
			L			L	<u></u>	



CWE03-N-052709

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Sheet of 7	Sheet		of	4
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U.S. Fish and Wildlife Service - National Abnormal Amphibian Initiative

Refuge: Coldwater Rive			
Collectors: B. Rosamos J. T.	Remagas Site/Location:	cwe03	_

Abnormal Frog ID Number: R4-LWR03-052764-RASP-001

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etc. –describe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
	1./	Digits missing from foot (specify
	V	digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
	1	abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
	1	abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRONT LIMBS					
Left	Right				
		Partial limb (describe)			
		Foot missing			
		Digits missing, fused or clubbed (describe)			
		Complete calf present, abnormal musculature (enlarged or atrophied)			
		Other (describe)			

JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

TAIL (NOTE be noted in com	3: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:	
Missily top of the 4 on	rigust



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Left

Right



U.S. Fish and Wildlife Service - National Abnormal Amphibian Initiative

Refuge:	Coldwater	River	Date:	5/27/11	
Collectors:	B. Rosemond	T. Pamagos	Site/Location:	Curo3	

Abnormal Frog ID Number: R4-CWR03 - 052709 -RASP-202

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. –describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

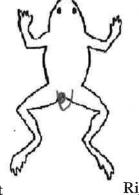
FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal
		musculature (enlarged or atrophied)
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

TAIL (NOTE: de be noted in comme	lamaged tails, such as missing or ragged tipped tails should nts section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
1/	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS: lesion on pase of tail



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Left

Right

Sheet	3	of \forall
SHEEL		01 _/



Refuge: Coldwar Ryer	Date: 5/27/09
Collectors: B. Rosamad, T. Ramagos	Site/Location: <u>Cwg-03</u>

Abnormal Frog ID Number: R4-CWR03-052709-RASP-003

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES

FRONT LIMBS

EYES		
Left	Right	
		Smaller than normal
-		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etcdescribe)
		Entire limb present, abnormal size (atrophied or enlarged)
	V	Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

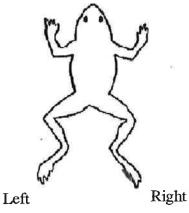
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

TAIL (NOT	E: <u>damaged</u> tails, such as missing or ragged tipped tails should nments section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:	Joe Z	
Missing tip	of right rear foot	

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



Refuge:	Coldwater River	Date:	5/29/09	
Collectors:	Marke William	Site/Location:	CWR 03	
Abnormal F	rog ID Number: _			

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
-17		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

Left	Right	
		Partial limb (describe)
	10	Foot missing
		Digits missing, fused or clubbed (describe)
	1	Complete calf present, abnormal
		musculature (enlarged or atrophied)
		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. —describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or
Zmm		atrophied) Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

TAIL (NOTE: damaged tails, such as missing or ragged tipped tails should be noted in comments section on data sheet, but not counted as abnormal)

kinked or bent tail

cysts, lumps or growths

	other (describe)	
TORSO	X LOUD IN THE CONTRACTOR OF TH	
	lumps / bumps	
	abrasions	
	bloated or swelling	
	bruising or other discoloration	

COMMENTS:	2 mm	of	timolibula	present.	No
calf moule pres	MT.				

other (describe)

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Left

Right



SITE CHARACTERIZATION FORM

Refuge:	Coldwater River NWR		Collectors :	Becky Ros	amond, Marl	k Williams, Erin Wheeler, and
Date:	6/18/2009			Sidney Tox		,
Site ID:	CWR004					
Start Time :	09:49 a.m.	Air (°C):	32.2	Weather:	sunny, hot,	and humid.
End Time:	10:07 a.m.	H ₂ O (°C):	31.1			
Datum:	WGS 84 decimal degrees (hddd.d	lddddo)	Elevati	on (+/- m) :		
Latitude:	The second deliber (made)	N 34.1051		GPS unit :	Garmin	
Longitude:		W 90.13616		GPS unit :		
Describe when East of survey	re coordinates were taken in relati area.	on to wetlan	d :			
Area (m²): % Canopy Cover: Habitat type (1,000 Water level (sel	(deep (> 3ft in some areas)	shallow (<3ft throughout)	drying (between 3 ft and dry)	dried up (no water)
Contaminants	of Concern (Select from list):			Surroundir	og I and Haa	(Select from list):
Pesticides (rece					' NO Riparia	
0			-		Riparian Co	
					NO Riparia	
			-		NO Riparia	
Site Photo File	names (SiteID-direction facing-DA	TF).	-	-	<u> </u>	
CWR004-W-06	_	,.		CWR004-N	-061800	
CWR004-S-061	809	-	_	- WR004-11	-001009	
Comments:			-			
Jnit largely vegovith little to no v	etated with water primrose (<i>Ludwigi</i> vegetation. Entire unit is 17 acres, b	a) and clump ut only appro	os (some dens oximately 100	se) of 2 - 5 00 m2 searcl	year old will ned.	ow. Area with standing water



USFWS National Abnormal Amphibian Program SITE CHARACTERIZATION FORM

Refuge :	Coldwater River NWR	Collectors :	: Becky Rosamond, Mark Williams, Erin Wheeler, and
Date:	6/18/2009	.	Sidney Townes
Site ID:	CWROO4 (Pond F)	-	
Start Time :	09:49 a.m. Air (°C):	32.2	2 Weather: sunny, hot, and humid.
End Time:	10:07 a.m. H₂O (°C):	31.1	1
Datum:	WGS 84 decimal degrees (hddd.dddddo')	Elevati	tion (+/- m) :
Latitude:	N 34.1051	Make of	of GPS unit: Garmin
Longitude :	W 90.13616	Model of	of GPS unit : III+
Describe whe East of survey	re coordinates were taken in relation to wetla area.	nd :	
Area (m²) : % Canopy Cover: Habitat type (Water level (select from): 0 Select from list): Man-made Pond	deep (> 3ft in some areas)	shallow drying dried up e (< 3ft (between 3 (no water) throughout) ft and dry)
Contaminant	of Concern (Select from list):		Surrounding I and I to (Calast from Est)
Pesticides (rec	· ·	No-th .	Surrounding Land Use (Select from list): Waterbody / NO Riparian Corridor
1 concludes (1cc	oney	5	Waterbody / Riparian Corridor
		i i	Waterbody / NO Riparian Corridor
			Waterbody / NO Riparian Corridor
Site Photo File	enames (SiteID-direction facing-DATE):		
CWR004-W-0	618)(1 09		CWR004-N-06182009
CWR004-S-06	18709		
Comments:		9 3	
Unit largely ve with little to no	getated with water primrose (<i>Ludwigia)</i> and cluivegetation. Entire unit is 17 acres, but only app	mps (some de proximately 10	ense) of 2 - 5 year old willow. Area with standing water 1,000 m2 searched.



SITE CHARACTERIZATION FORM

Refuge:	CWR		Collectors	· B. R	OSA MINO	1	
Date:	6/18/09			k1. 1/1	Mams		
Site ID:	Unit F			EW	heeler	5.70	wnes
Start Time : End Time :	09.49 a.m.	Air (°C): H ₂ O (°C):	880F	Weather :	Shinn	s hot	humid
Datum :	WGS 84 decimal degree	s (hddd dddddo)	31.1°C Elevati	on (+/- m) :			
Latitude:	N 34, 10570	s (nada.adada)		GPS unit :			
Longitude:	W 90.13616			GPS unit :	- Calar	min	
Describe whe	re coordinates were taken	in relation to wetla		9			
6 .							
	of Survey area						
Area (m²) : % Canopy Cover:		vel (select from):	deep (> 3ft in some areas)	shallow (< 3ft throughout)	(between 3	dried up (no water)	
Habitat type	(Select from list):						
	(
Contaminant	s of Concern (Select from li	st):	North: East: South:	Surroundi	ng Land Use	(Select from	list):
			West:				
Site Photo File	enames (SiteID-direction fa	cing-DATE):	1				
D		ong Dille).		0,1			
(2)c				(3/N			
<i>W</i> /5							
Comments:							
As.							
	my of medos	Unit F	Negare Dw				



DATA COLLECTION FORM

Date:				Collectors:	P
Refuge:					
Site ID:	Uni	LF.			
Air Temp		Water Temp)		
(C ₀)		(C°))	Start time:	# Egg Masses Present:
Water	level (selec	t from the follo	wing):	End time:	Egg Mass Water Depth (cm):
deep	shallow	drying	dried up	Weather:	Egg Mass Species ID Code(s):
> 3ft in some areas)	(< 3ft througout)	(between 3 ft and dry)	(no water)		

Frog#	Species	Length	(mm)	Gosner	Abnormal?	Preserved?	Abnormal	Comments
r r og ir	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID	Comments
	BFOW	8	0	46				
1		14						
3		TT .						
4		12						
5		13						
6		11						
7		10						
8		13						
9		13						
10		12						
ii		T) T						
12		12						
13		15						
14		12						
15		Ti -						
10		13						
17		15						
18		13						
19		10						
20		13						
21		13						
22		14						
23		14						
24		13						
15		12						
26		12					-	
27		il.					· · · · · · · · · · · · · · · · · · ·	
28		14						

1 Frog #: Number fro	gs 1,2,3,	for each	species
----------------------	-----------	----------	---------

2. Process each frog

3. If abnormal, assign a unique Abnormal Frog ID:
Region Number (R4) - 5 character SiteID 6 digit collection date - Species Code 3 digit Frog # from this collection.

Key Measurements of Tadpoles/Metamorphs

orphi

Incidental Species Encountered:

BL = Body Length TAL = Tail Length SVL = Some Vent Length TL = Total Length BL - To of the anest to the point where the lateral number of the tail numbe your the body. TAL - Frent where the lateral number of the tail numbe joins the body to the big of the tail.

Comments:

Example Abnormal Frog ID: R4-OVF02-060403-RASP-002 wi TAL- Feet when the latest suches of the submediate body in the type of the tall

Region 4, Overflow NWR, site 02, June 4, 2003, Rana sphenocephala, frog #002

4. Fill out an Abnormal Prog Sheet for each abnormal frog found.



DATA COLLECTION FORM

		DATA COLLECTION FORM			1				
Frog#	Species Code	Length SVL	(mm) TAL	Gosner Stage	Abnormal? (mark if Yes)	Preserved? (mark if Yes)	Abnormal Frog ID	Comments	
29	BFOW	13	()	46					1
30		14	Ī	1					1
		14							1
31 32 33		8							ł
23		12							ł
24		13		\vdash				_	ł
34 35		12	-	\vdash					ł
36		13	\vdash	\vdash					ł
31		13 a							l
	-1	I /							
38 39		14							
		9							1
40		10							
41		14							
42		10						Right foot wrist front	Swa
43		ි							dis
44		Ϋ́L							Swo dist
45		13							MI
46		12							3/4
47		il .							SVI
48		10							
49		12							ł
50					V			toes 1,2,4 Right fro	1 0
50 51 52 53 54		11	+	-/-				TOCS 1,2,1 KIMINI TO	N1 8
52		10			===				l
52		10							
55		11	-1						
57	$-$ \	12							
55		8							
50		13		-111				4	
51		13		- V					
58		12							
अ									
60		[2							
(0)									
58 59 60 61 62 63 64 65		8			\checkmark			Right Rear leymissing from	INR
B								The Jan Karry of March 1	
(o4		1							
105		(0,							
100		12		\Box					
-Ora		16	- Р						
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								+	





Unit F Site CWROH

South

06/18/2009

Brow collection

	*	
	×	

Sheet	of	3



Refuge: Colour River Date: 6/18/2009

Collectors: B. Rosamond M. Williams, Site/Location: CWROGY (Unit F)

Abnormal Frog ID Number: R4-CWR04-061809-BFOW-042

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
		digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRON	T LIMBS	A Va
Left	Right	
		Partial limb (describe)
		Foot missing
	X	Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
	X	Other (describe)

JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
	-	Other (describe)	

: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)
kinked or bent tail
cysts, lumps or growths
other (describe)

ORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS: Right front we st and foot swollen and discolored; Toe Zmissing, toes 3 and 4 short



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Left



Refuge: Coldwater River Date: 7/30/09

Collectors: B. Resamped, M. Williams, E. Site/Location: CWRDD4 (Unit)

wheeler, S. Townes

Abnormal Frog ID Number: R4-CWRD4-061809-BFOW-050 Date: 7/30/09
Site/Location: CWROO4 (Unit F

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
	8	Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. –describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
	7	Digits in abnormal location (describe)
		Extra digits (describe)
	+	Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
111		Complete calf present, abnormal musculature (enlarged or atrophied)
-7-15	Y	Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
-		Other (describe)

3: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)
kinked or bent tail
 cysts, lumps or growths
other (describe)

ORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS: Right front foot, toes 1, 2, 4 smart



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Left



Date: 6/18/2009
Site/Location: 6/18/2009 Refuge: Colouater River Collectors: B. Rosamond, M. Williams E. Wiegler, S. Townes Abnormal Frog ID Number: R4-CWR04-061809-BFOW-062

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
	7	Other (describe)

HIND	HIND LIMBS		
Left	Right		
		Entire limb present, unusual angle	
		(twisted, rotated, etcdescribe)	
		Entire limb present, abnormal size	
		(atrophied or enlarged)	
		Digits missing from foot (specify	
		digits)	
		Digits shortened, fused or clubbed	
		Digits in abnormal location	
		(describe)	
		Extra digits (describe)	
	X	Foot missing (tarsal bones)	
		Complete calf (tibiofibula) present,	
		abnormal musculature (enlarged or	
		atrophied)	
		Portion of calf missing (estimate	
		length of calf present)	
		Entire calf (tibiofibula) missing	
		Complete thigh (femur) present,	
		abnormal musculature (enlarged or	
		atrophied)	
		Portion of thigh (femur) missing,	
		(estimate length of thigh present)	
		Entire limb missing	
		Other (describe)	

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
-	F	Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

TAIL (NOTE	i: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)

ſ	nes à	MILT.	LDYK	1
	4	1		
U	OTEL	4	IJ	ı

Sheet	of	

Refuge:	Date:	ä
Collectors:	Site/Location:	
Abnormal Frog ID Number:		

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
		digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
	N.	abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
		abnormal musculature (enlarged or
	_1	atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
H-DH-CO		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRON	T LIMBS	
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

E: <u>damaged</u> tails, such as missing or ragged tipped tails should iments section on data sheet, but not counted as abnormal)
kinked or bent tail
 cysts, lumps or growths
other (describe)

TORSO	X
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:		



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



USFWS National Abnormal Amphibian Program SITE CHARACTERIZATION FORM

Refuge :	Coldwater River		Collectors:	Becky Rosa	amond	
Date :	7/8/2009		s mi	Mark Willi	ams	
Site ID :						
			9			
Start Time :	1148-BR; 1241-MW	Air (°C) :	37	Weather:	sunny, hot, and humid	
End Time :	1300-BR and MW	$H_2O(^{\circ}C)$:	31	į		
Dotum	WGS 84 decimal degrees	(bddd dddddo)	Elevatio	on (+/- m) :		
Datum : Latitude :	WGS 84 decimal degrees	N 34.09936	6	GPS unit :	Garmin	
Longitude :		W 90.13025		GPS unit :		
Describe whe	ere coordinates were taken i	in relation to wetla	and :			
Area (m²) : % Canopy Cover: Habitat type	, O	vel (select from):	deep (> 3ft in some areas)		drying dried up (between 3 (no water) ft and dry)	
Contaminant	s of Concern (Select from li	st):		Surroundi	ng Land Use (Select from l	list):
	(00000)		North:		/Riparian Corridor	·
Pesticides (his	storic)				/Riparian Corridor	
	·,				/Riparian Corridor	
			•		/Riparian Corridor	
	lenames (SiteID-direction fa	cing-DATE):				
CWR05-W-0				CWR05-N	-070809	-
CWR05-S-07	0809		5			
Comments :						
		×	Page 1		· ·	vr05-accr-070809

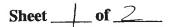
	Species	Lengt	h (mm)	Gosner	Abnormal?	Preserved?	Abnormal	Comments
Frog#	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID	
29	ACCR	15.	O	46				
30		14	0	46				
3/		15	0	45				
32		15	0	46				
		15	0	46				
33		14	ŏ	46				
34			1	45				
35		15	1//	44				
3.6		15	4	45				left roar fact; tees
37		IS	0					yarasing
38		14	0	45	-			
39		15	0	46	ļ			
10		15	0,	45				
41		14	4	44				
42		14	0	46				
43		15	0	46				
44		15	9	44				
45		14	0	45				Tent our Marketina
46		15	T	45				left eye missing
47		15	12	44				
18		15	0	46				
19		16	0	46				
	-	16	15	43	†			died
50	-	14	7	44				
51		-	+	45	1			
25		14	+ -					
53		16	0	45				Died
54		16	12	43				Pied
55		15	15	43				.,,,,,
					-			
					1			
	1	1						
		1	1	_				
		1	-		1			
	-		-	-	+			
						+		
		-	-	+			,	
	1			4	-			
		+		1				



USFWS National Abnormal Amphibian Program SITE CHARACTERIZATION FORM

Refuge :	Coldwater River	Collectors:	Becky Rosamond
Date :	7/8/09		Made Williams
Site ID:	CWR 05 (Port P)	tr :	
Start Time : End Time :	BR MW 1148 1241 Air (°C): 1300 1300 H ₂ O (°C):		Weather: sunny, hot, and humid
Datum :	WGS 84 decimal degrees (hddd.ddddd°)	Elevation	on (+/- m) :
Latitude :	N 34°, 09936	Make of	GPS unit : Garmin
Longitude :	W90°.13025	Model of	GPS unit : 3+
Describe whe	re coordinates were taken in relation to wetla	and :	
Area (m²): % Canopy Cover: Habitat type	0	deep (> 3ft in some areas)	shallow drying dried up (<3ft (between 3 (no water) throughout ft and dry)
Contaminant	s of Concern (Select from list):		Surrounding Land Use (Select from list):
	,	North:	Waterbody/Riparian Corridor
Pesticides (his	storic)	East:	Waterbody/Riparian Corridor
		South:	Waterbody/Riparian Corridor
,		West:	Waterbody/Riparian Corridor
Site Photo Fil	lenames (SiteID-direction facing-DATE) :	- ;	
CWR05-W-07			CWR05-N-070809
CWR05-S-070			
		2	
Comments :			*
			_
			·-
			9
		Page 1	cwr02-bfow-052709

		3			
		3			
		3			
		8			





Refuge: Coldwater River Date: 7/8/2009
Collectors: Becky Rosamond; Mark Williams Site/Location: CWROS (Fand D)

Abnormal Frog ID Number: <u>R4-CWR0S-070809-ACCR-037</u>

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		1100
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
15-		Digits missing from foot (specify
		digits)
toe 5	- VI	Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
	1	abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
	1	abnormal musculature (enlarged or
	1	atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHE	K ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right
	1	(describe)
		WEBBING - fusion between thigh
	1	and calf (describe)
		Extra Limbs- how many, location
		(describe)
		Fresh Bleeding or Injuries
		(describe)
		Other (describe)

FRON	T LIMBS	
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

TAIL (NOT)	E: <u>damaged</u> tails, such as missing or ragged tipped tails should iments section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
***	other (describe)

COMMENTS:		
	и.	



abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Draw



Refuge: Colourator River Date: 7/8/2009

Collectors: Berky Rosamond, Mark Williams Site/Location: CUR 05 (Pond P)

Abnormal Frog ID Number: R4-CWR05-070809-ACCR-046

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
. x		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
×		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
		digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
	1	abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

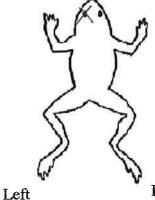
FRONT LIMBS						
Left	Right					
		Partial limb (describe)				
		Foot missing				
		Digits missing, fused or clubbed (describe)				
		Complete calf present, abnormal musculature (enlarged or atrophied)				
		Other (describe)				

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

TAIL (NOTE be noted in com	3: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)				
	kinked or bent tail				
	cysts, lumps or growths				
	other (describe)				

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

C	OMMENTS:	,		
1	Missing	left	ere	
			O	
1				



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



DATA COLLECTION FORM

Date:				Collectors:	
Refuge:					
Site ID:					
Air Temp		Water Temp	1		
(C*)		(C°))	Start time:	# Egg Masses Present:
Water	level (select	from the follo	wing):	End time:	Egg Mass Water Depth (cm):
deep	shallow	drying	dried up	Weather:	Egg Mass Species ID Code(s):
(> 3ft in some areas)	(< 3ft througout)	(between 3 ft and dry)	(no water)		

P PORPH I	Species Length (mm)		Preserved?	Abnormal Comm.	Comments			
riogw	Code	SVL	TAL	Stage	(mark if Yes)	(mark if Yes)	Frog ID	
			-					
							 	
				-				
				-				
				!				
			-	 				
			1	1				
				+				

1. Prog #: Number frogs 1,2,3,... for each species.

2. Process each frog

3. If abnormal, assign a unique Abnormal Frog ID:
Region Number (R4) - 5 character SiteID 6 digit collection date - Species Code 2 digit From the collection.

BL.—Body Laugh TAL.—Tall Laugh SVL.—Surel-Vest Laugh TL.—Taul Laugh
BL.—To diffe most to be point where the intered militar of the tall numbs joint the body.

ISL.—To other the bened militare of the tall numbs joues for body to the tail.

Comments:

Incidental Species Encountered:

3 digit Prog # from this collection.

Til. For the table of indicated and program in the form they of the initial Region 4, Overflow NWR, site 02, June 4, 2003, Rana sphenocephala, frog #002

Fill out an Abnormal Prog Sheet for each abnormal frog found.

Sheet) _	of	3



Date: 6/18/2009 Refuge: Lobwater River Site/Location: CWROdy (Unit F) Collectors: B. Rosamond M. Williams, Site/Location: CWROGY (U E. Wiceler, S. Townes Abnormal Frog ID Number: R4-CWROY-061809-BFOW-042

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND	HIND LIMBS		
Left	Right		
		Entire limb present, unusual angle (twisted, rotated, etcdescribe)	
		Entire limb present, abnormal size (atrophied or enlarged)	
		Digits missing from foot (specify digits)	
		Digits shortened, fused or clubbed	
		Digits in abnormal location (describe)	
_		Extra digits (describe)	
		Foot missing (tarsal bones)	
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)	
		Portion of calf missing (estimate length of calf present)	
		Entire calf (tibiofibula) missing	
	8	Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)	
		Portion of thigh (femur) missing, (estimate length of thigh present)	
		Entire limb missing	
		Other (describe)	

Left	Right	
		SPINE - curved to left or right
		(describe)
		WEBBING - fusion between thigh
		and calf (describe)
		Extra Limbs- how many, location
		(describe)
		Fresh Bleeding or Injuries
		(describe)
		Other (describe)

FRON	FRONT LIMBS			
Left	Right	210		
		Partial limb (describe)		
		Foot missing		
	1 x	Digits missing, fused or clubbed (describe)		
		Complete calf present, abnormal musculature (enlarged or atrophied)		
	X	Other (describe)		

JAWS		
Left	Right	
-		Lower jaw shortened
-		Upper jaw shortened
		Other (describe)

TAIL (NOT	E: <u>damaged</u> tails, such as missing or ragged tipped tails should nments section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
7851	other (describe)

COMMENTS: Right front wrist and foot swollen and discobord; Toe Zmisslag, toes 3 and 4 short



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Left



Refuge: Coldwater River Date: 7/30/09
Collectors: B. Rosamord, M. Williams, E. Site/Location: CWR DOY (Unit F)

Abnormal Frog ID Number: R4-CWR04-061809-BFOW-050

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
24%		Extra eye(s) (describe)
	-	Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
		digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
	N.	abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

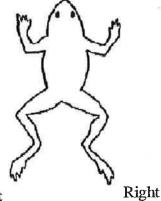
FRON	T LIMBS	
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
	X	Other (describe)

JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

3: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)
 kinked or bent tail
cysts, lumps or growths
 other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS: Right front foot, toes 1, 7, 4 shart



Draw
abnormalities
found on
diagram with
dorsal side up
(frog lying on
its stomach)

Left



Date: 6/18/2009
Site/Location: (wR 604(Unit F) Refuge: Colbuster River Collectors: B. Rosamand, M. Williams Site/Location: CWR 604 (Unit F. Wheelen, S. Townes Abnormal Frog ID Number: R4-CWR04-061809-BFOW-062

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
		digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
	X	Foot missing (tarsal bones)
-		Complete calf (tibiofibula) present,
	1	abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right
		(describe)
		WEBBING - fusion between thigh
		and calf (describe)
		Extra Limbs- how many, location
		(describe)
		Fresh Bleeding or Injuries
		(describe)
		Other (describe)

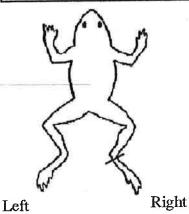
FRON	T LIMBS	
Left	Right	
		Partial limb (describe)
-	- 34	Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
	1	Other (describe)

TAIL (NOTI	E: <u>damaged</u> tails, such as missing or ragged tipped tails should ments section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:	



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



Refuge:	Date: Site/Location:	
Abnormal Frog ID Number:		
Check boxes that best describe the abnormali	ities. Note descriptions should be with dorsal sid	e up

EYES		
Left	Right	
		Smaller than normal
-		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

	LIMBS	
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
==:		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
		digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRON	T LIMBS	
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

JAWS	4.4		
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	100000000000000000000000000000000000000

TAIL (NOT	E: <u>damaged</u> tails, such as missing or ragged tipped tails should nments section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:	



Draw
abnormalities
found on
diagram with
dorsal side up
(frog lying on
its stomach)

Left

Sheet	1	of_	4	
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Refuge: Coldwater	River	Dato	5/27/09
Collectors: B. Coseman J	T Ranges	Site/Location:	CWR03

Abnormal Frog ID Number: R4-AWR 0.3 - 052764 - RASP-001

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES	*:	
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
	V	digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present
	1	abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

	E: <u>damaged</u> tails, such as missing or ragged tipped tails should nments section on data sheet, but not counted as abnormal)
	kinked or bent tail
	cysts, lumps or growths
V 2/1/2	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:

Mussily top of toe 4 on right ear Foot.



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Left



Refuge: Coldwar River	Date: 5/27/09
Collectors: B. Rosan and J. Ramagas	Site/Location:

Abnormal Frog ID Number: R4-CWR03-052709-RASP-003

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
	1	Digits missing from foot (specify
	V	digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
		abnormal musculature (enlarged or
		atrophied)
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
		abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

		RMALITIES
Left	Right	
		SPINE - curved to left or right
		(describe)
		WEBBING - fusion between thigh
		and calf (describe)
		Extra Limbs- how many, location
		(describe)
		Fresh Bleeding or Injuries
		(describe)
		Other (describe)

FRONT LIMBS			
Left	Right		
		Partial limb (describe)	
		Foot missing	
		Digits missing, fused or clubbed (describe)	
		Complete calf present, abnormal musculature (enlarged or atrophied)	
-		Other (describe)	

JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	_

TAIL (NOTE: <u>damaged</u> tails, such as missing or ragged tipped tails should be noted in comments section on data sheet, but not counted as abnormal)	
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

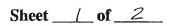
Missing tip of right rear foot.



Draw
abnormalities
found on
diagram with
dorsal side up
(frog lying on
its stomach)

Left

	200)	
2 8		





Refuge: Coldwester River NWR Date: 5/27/09
Collectors: B. Rosamond, T. Ramagos Site/Location: CWR 02

Abnormal Frog ID Number: R4-CWR02-052709-BFOW-001

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. —describe)
		Entire limb present, abnormal size (atrophied or enlarged)
		Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHER ABNORMALITIES		
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRON	T LIMBS	
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal
		musculature (enlarged or atrophied)
		Other (describe)

JAWS			
Left	Right		***
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

TAIL (NOTE: <u>damaged</u> tails, such as missing or ragged tipped tails should be noted in comments section on data sheet, but not counted as abnormal)		
	kinked or bent tail	
	cysts, lumps or growths	
	other (describe)	

RSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

comments: left rear foot missing portions of toes 2+4



Draw
abnormalities
found on
diagram with
dorsal side up
(frog lying on
its stomach)

Left



Refuge: Coldware River	Date: 5/27/09
Collectors: B. Rose mand, T. Ramagas	Site/Location: CWE 02

Abnormal Frog ID Number: R4-CWRD2-052709-RASP-001

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND LIMBS		
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. —describe)
		Entire limb present, abnormal size (atrophied or enlarged)
	V	Digits missing from foot (specify digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

~ 0	R ABNO	T
Left	Right	
		SPINE - curved to left or right
		(describe)
		WEBBING - fusion between thigh
		and calf (describe)
		Extra Limbs- how many, location
		(describe)
		Fresh Bleeding or Injuries
		(describe)
		Other (describe)

FRONT LIMBS		
Left	Right	
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

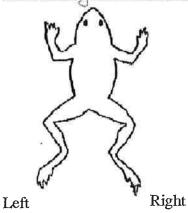
JAWS			
Left	Right		
		Lower jaw shortened	
		Upper jaw shortened	
		Other (describe)	

TE: <u>damaged</u> tails, such as missing or ragged tipped tails should mments section on data sheet, but not counted as abnormal)
kinked or bent tail
cysts, lumps or growths
other (describe)

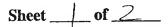
TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:

Missing tip of toe 4 on right rear leg - bone still present but sight tissue gome



Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)





Refuge: Coldwater River Date: 7/8/2009
Collectors: Becky Rosamond; Mark Williams Site/Location: CWROS (Pand P)

Abnormal Frog ID Number: <u>R4-CWROS-070809-ACCR-037</u>

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
-		Unusual position (describe)
-		Missing iris, "Hollow Eye"
-X7 - E		Extra eye(s) (describe)
	-	Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle (twisted, rotated, etc. —describe)
		Entire limb present, abnormal size (atrophied or enlarged)
5		Digits missing from foot (specify digits)
-		Digits shortened, fused or clubbed
		Digits in abnormal location (describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present, abnormal musculature (enlarged or atrophied)
		Portion of calf missing (estimate length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present, abnormal musculature (enlarged or atrophied)
		Portion of thigh (femur) missing, (estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRONT LIMBS		
Left	Right	7
		Partial limb (describe)
		Foot missing
		Digits missing, fused or clubbed (describe)
		Complete calf present, abnormal musculature (enlarged or atrophied)
		Other (describe)

JAWS		
Left	Right	
		Lower jaw shortened
		Upper jaw shortened
		Other (describe)

TAIL (NOTE: damaged tails, such as missing or ragged tipped tails should be noted in comments section on data sheet, but not counted as abnormal)	
	kinked or bent tail
	cysts, lumps or growths
	other (describe)

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMEN			



Right

Draw abnormalities found on diagram with dorsal side up (frog lying on its stomach)



Refuge: Coloulator River Date: 7/8/2009
Collectors: Berky Rosamond, Mark Williams Site/Location: CWR Ø5 (Pand P)

Abnormal Frog ID Number: R4-CWR05-070809-ACCR-046

Check boxes that best describe the abnormalities. Note descriptions should be with dorsal side up

EYES		
Left	Right	
		Smaller than normal
		Pupil abnormally shaped
		Unusual position (describe)
X		Missing iris, "Hollow Eye"
		Extra eye(s) (describe)
		Other (describe)

HIND	LIMBS	
Left	Right	
		Entire limb present, unusual angle
		(twisted, rotated, etcdescribe)
		Entire limb present, abnormal size
		(atrophied or enlarged)
		Digits missing from foot (specify
		digits)
		Digits shortened, fused or clubbed
		Digits in abnormal location
		(describe)
		Extra digits (describe)
		Foot missing (tarsal bones)
		Complete calf (tibiofibula) present,
	1	abnormal musculature (enlarged or
		atrophied)
		Portion of calf missing (estimate
		length of calf present)
		Entire calf (tibiofibula) missing
		Complete thigh (femur) present,
	1	abnormal musculature (enlarged or
		atrophied)
		Portion of thigh (femur) missing,
		(estimate length of thigh present)
		Entire limb missing
		Other (describe)

OTHE	R ABNO	RMALITIES
Left	Right	
		SPINE - curved to left or right (describe)
		WEBBING - fusion between thigh and calf (describe)
		Extra Limbs- how many, location (describe)
		Fresh Bleeding or Injuries (describe)
		Other (describe)

FRONT LIMBS				
Left	Right			
		Partial limb (describe)		
		Foot missing		
		Digits missing, fused or clubbed (describe)		
		Complete calf present, abnormal musculature (enlarged or atrophied)		
		Other (describe)		

JAWS		
Left	Right	
		Lower jaw shortened
-		Upper jaw shortened
		Other (describe)

TAIL (NOTE: <u>damaged</u> tails, such as missing or ragged tipped tails should be noted in comments section on data sheet, but not counted as abnormal)		
	kinked or bent tail	
	cysts, lumps or growths	
	other (describe)	

TORSO	
	lumps / bumps
	abrasions
	bloated or swelling
	bruising or other discoloration
	other (describe)

COMMENTS:			



abnormalities found on diagram with dorsal side up (frog lying on its stomach)

Draw

Left